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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,483	11/05/2003	Akio Aoyama	NEC03P166-RIa	7753
21254 7590 09/29/2009 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817				
EXAMINER				
CASCA, FRED A				
ART UNIT		PAPER NUMBER		
2617				
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09/29/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/700,483

**Applicant(s)**

AOYAMA, AKIO

**Examiner**

FRED A. CASCA

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-73 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed July 06, 2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-8, 10-13, 16, 20-21, 24, 26-27, 30-32, 35-35, 38-40, 43, 45-50, 53 and 55-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Desgagne (US6,047,191).

Referring to claim 1, Veerasamy discloses a method of collecting information used for adjustments with an information collecting server in a radio communication system connected to at least one mobile radio terminal for performing user communications (abstract and Par. 7, Fig. 1, "server 195"), comprising:

in said mobile radio terminal, monitoring a communication status of a communication connection using a traffic channel, wherein said communication status corresponds to whether or not the mobile radio terminal has an existing communication connection using a traffic channel, which satisfies predetermined criteria (Fig. 1 and par. 31-32, 33 and 35, "MS 113 ... in communication with BS 102", "detects RF holes ... relays GPS position", note that the mobile terminal reports call drop, thus it monitors its communication status. Further note that a call drop happens when the signal strength is weaker than a predetermined threshold (predetermined criteria)),

detecting a trigger when a change of said communication status has satisfied a predetermined condition (par. 34, "detect RF holes," "call dropped," note that the call drop is the predetermined condition);

acquiring a reception status of a radio signal (Par. 33, "signal strength");

acquiring a coordinate position of said mobile radio terminal and sending measured information including coordinate position to said information collecting server ((Par. 35 and 36, "relays the GPS position ... to RF coverage server").

Veerasamy does not specifically disclose acquiring a reception status of a radio signal when trigger is detected and sending the reception status to said collecting server in the format claimed.

In the same field of endeavor, Desgagne discloses measuring the signal strength of a mobile station when a call termination occurs (fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 -

col. 6, line 9, "measure the signal strength when the MS is ... terminating access", "terminating access when a seized DTC is disturbed").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Veerasamy in the format claimed, for the purpose of providing an efficient communication system.

Referring to claim 2, combination of Veerasamy/Desgagne discloses the method according to claim 1, and further disclose predetermined condition comprises an occurrence of a forced disconnection of the user communication (Veerasamy, Par. 34-35, "holes").

Referring to claim 5, combination of Veerasamy/Desgagne discloses the method according to claim 1.

The combination does not specifically disclose the predetermined condition is a call which is made. The combination discloses that the predetermined condition is handover of a call from a first base station to another base station (Veerasamy, Par. 33).

It would have been an obvious design choice to modify the invention of Veerasamy/Desgagne by limiting the predetermined condition to a call initiation condition since the applicant has not disclosed that having the predetermined condition being call made solves any stated problems or is for any particular purpose and it appears that handover being set as a precondition would perform equally well as the predetermined condition since a handover inherently comprises a call set up with the target base station.

Referring to claim 6, combination of Veerasamy/Desgagne discloses the method according to claim 1 and further discloses in said information collecting server, sending value information indicative of a value given for said measured information, which is provided to said mobile radio terminal when said measured information is received; and in said mobile radio terminal, displaying the value indicated by said value information when said value information is received (Veerasamy, par. 55-58 and 71, and Desgagne, fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 - col. 6, line 9).

Referring to claim 7, combination of Veerasamy/Desgagne discloses the method according to claim 1, and further disclose the radio communication system comprises a CDMA radio communication system (Veerasamy, par. 24, "CDMA").

Referring to claim 8, claim 8 recites features analogous to the features of claim 1. Thus, the combination of Veerasamy/Desgagne discloses all elements of claim 8.

Referring to claim 11, claim 11 recites features analogous to the features of claim 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claim 11.

Claims 10, 18, 25, 29, 37, 44, 47 and 54 recite features analogous to the features of claim 6. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 10, 18, 25, 29, 37, 44, 47 and 54.

Claims 16, 24, 35, 43, and 53 recite features analogous to the features of claim 5 (as rejected above). Thus, the combination of Veerasamy/Desgagne discloses all limitations of claims 16, 24, 35, 43, and 53.

Referring to claim 56, combination of Veerasamy/Desgagne discloses the method according to claim 1, and inherently disclose acquiring a reception status further includes acquiring at least one of a received signal quality and a received signal intensity of a common channel (par. 24 and 33).

Referring to claim 57, combination of Veerasamy/Desgagne discloses the method according to claim 1, and further disclose acquiring said coordinate position information further includes acquiring coordinate information of said mobile radio terminal by using Global Positioning System (Par. 36, "GPS").

Claims 12-13, and 19 recite features analogous to the features of claims 1-2, and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 12-13, and 19.

Claims 20-21, and 26 recite features analogous to the features of claims 1-2, and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 20-21, and 26.

Claims 27 and 30 recite features analogous to the features of claims 1 and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 27 and 30.

Claims 31-32, and 38 recite features analogous to the features of claims 1-2, and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 31-32, and 38.

Claims 39-40, and 45 recite features analogous to the features of claims 1-2, and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 39-40, and 47.

Claims 46 and 48 recite features analogous to the features of claims 1 and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 46 and 48.

Claims 49, 50, and 55 recite features analogous to the features of claims 1-2, and 7. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 49, 50, and 55.

Claims 58, 60, 62, 64, 66, 68, 70 and 72 recite features analogous to the features of claim 56. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 58, 60, 62, 64, 66, 68, 70 and 72.

Claims 59, 61, 63, 65, 67, 69, 71 and 73 recite features analogous to the features of claim 57. Thus, the combination of Veerasamy/Desgagne discloses all elements of claims 59, 61, 63, 65, 67, 69, 71 and 73.



4. Claims 3-4, 9, 14-15, 17, 19, 22-23, 28, 33-34, 36, 41-42, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Desgagne (US6,047,191) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 3, combination of Veerasamy/Desgagne discloses the method according to claim 1.

The combination does not specifically disclose the predetermined condition comprises an occurrence of a handover failure.

The examiner takes official notice of the fact that handover failure is a well known reason for call drops.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed by modifying the call loss of Veerasamy by handover failure, for the purpose determining locations that handover failure occurs and thus reducing handover failures.

Referring to claim 4, combination of Veerasamy/Desgagne discloses the method according to claim 1.

The combination does not specifically disclose predetermined condition comprises the lowering of a throughput of said user communication below a predetermined threshold value.

The examiner takes official notice of the fact that setting measurement of throughput e.g., throughput compared to a threshold is well known in the art.

It would have been obvious to one of the ordinary skill in the art to modify the combination in the format claimed, for the purpose of maintaining quality communication sessions and thus providing an efficient communication system.

Claims 14-15 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 14-15.

Claims 22-23 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 22-23.

Claims 33-34 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 33-34.

Claims 41-42 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 41-42.

Claims 51-52 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 51-52.

Referring to claim 9, combination of Veerasamy/Desgagne discloses the method according to claim 8.

The combination does not specifically disclose the information collecting server sends trigger command simultaneously to the at least one mobile radio terminal based on a load on a radio circuit.

The examiner takes official notice of the fact that sending trigger commands (e.g., handover commands) to mobile terminals based on load status (e.g., traffic load of the current cell) is well known in the art.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to modify the above combination by allowing the network servers to have control in handover process such that handover would also depend on cell load information, for the purpose of preventing call drops and increasing communication quality.

Claims 17, 28 and 36 recite features analogous to the features of claim 9 (as rejected above). Thus, the combination of Veerasamy/Desgagne and well known art discloses all elements of claims 17, 28 and 36.

#### ***Response to Arguments***

5. Applicant's arguments with respect to the rejection of claims 1-73 have been considered but they are moot in view of new grounds of rejection.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred A. Casca/

Patent Examiner, Art Unit 2617

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617